

APPARATUS AND METHOD FOR SCALING A SWITCHING FABRIC IN A NETWORK
SWITCHING NODE

Abstract of the Disclosure

5 A method and apparatus for reallocating switching circuitry in a switching fabric are disclosed. The switching fabric is used to permit data transfer among a plurality of interface units each having a plurality of data ports. The switching fabric is partitionable into a plurality of switch planes such that each switch plane can be assigned to transfer data associated with like data ports of the interface units. Each switch plane includes multiple switching channels each
10 assignable to transfer data associated with one data port of one of the interface units, in a full implementation. The number of interface units is less than the number of switching channels in a switch plane, then the reallocation is performed such that multiple channels of at least one switch plane can be assigned to transfer data of multiple ports of at least one of the interface units. This results in switch plane channels that would otherwise be unused being utilized to transfer data.
15 This reallocation of switch plane channels can result in the elimination of one or more switch planes from the switch fabric resulting in substantially reduced hardware complexity and cost.

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